



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

JUL 3 - 2002

Mr. Martin Sabin  
Design Engineer  
Tempra Technology, Inc  
5149 15<sup>th</sup> Street East  
Bradenton, FL 34203

Ref. No.: 01-0318

Dear Mr. Sabin:

This responds to your letter requesting clarification of the requirements for shipping your product, a new individual food heater inside of a meals, ready-to-eat (MRE) ration package. Specifically, you asked whether the individual food heater, containing a Division 5.1 (oxidizer), in Packing Group II, and glycerin-water solution, would be excepted from the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). A facsimile of several photographs of the individual food heater, MRE ration package, and accompanying test report were enclosed. You provided information, as follows:

The individual food heater consists of two pouches with a total of 29.9 grams of potassium permanganate. Each of the hermetically sealed, vacuum packed pouches contains approximately 15 grams of potassium permanganate. The potassium permanganate is covered with an inert coating and meets the definition of Division 5.1 (Oxidizer) in Packing Group II, tested in accordance with the UN Manual of Tests and Criteria, 34.1, Test 0.1, as specified in § 173.127(a)(1). The amount of oxidizer in the combined two-pouch heater is less than the reportable quantity (RQ) of potassium permanganate (RQ, 100 lbs.) per package, and each pouch weighs 22.6 grams. The fuel is a glycerin-water solution. When the fuel pouch is ruptured, the fuel spreads throughout the oxidizer; the water slowly dissolves the coating of the permanganate crystals, which then react with the glycerin.

Based on the information you provided, it is our determination that the individual food heater described above when shipped as components of a MRE ration package is subject to the requirements of the HMR. This determination also applies to the individual food heater devices when shipped separately from MREs. The MRE ration package, containing an individual food heater, may qualify for the limited quantity or consumer commodity packaging exceptions specified in § 173.152(b) and (c), respectively, for Division 5.1 (oxidizers), or the small quantity packaging exceptions in § 173.4.

I hope this satisfies your inquiry. If we can be of further assistance, please contact us.

Sincerely,

Delmer F. Billings  
Chief, Standards Development  
Office of Hazardous Materials Standards



01-0318

172.101

Engram  
§ 172.101 (D)  
Applicability  
01-0318

**Temptra**  
Technology  
for Thermal Solutions/Options  
Martin Sabin  
Design Engineer  
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6140 15<sup>th</sup> Street East  
Bradenton, FL 34203

Date: 12/03/01

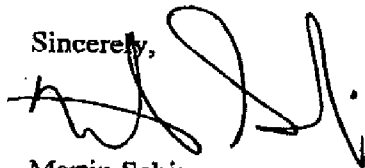
To: Suzanne Hedgepedth, Director  
Office of Hazardous Materials Exemptions and Approvals  
Fax: 202-366-3308

Subject: Request for Letter of Opinion

Dear Ms. Hedgepedth,

Our company is requesting a letter of opinion for a new individual food heater for shipment without special labeling. The requested letter is required by the U.S. Army in order to qualify our product for replacement of the existing magnesium/aluminum heater in military ration applications. When I called today, I was informed that faxing this document was probably the most effective method of delivering this document to you. If you should want a hard copy or an electronic copy of this document, you can e-mail me at [Msabin@tempratech.com](mailto:Msabin@tempratech.com). If you should have any questions regarding any of this material, please don't hesitate to call me at 1-800-867-9189. Your prompt reply to this matter would be greatly appreciated.

Sincerely,



Martin Sabin  
Temptra Technology, Inc.

7 page document enclosed